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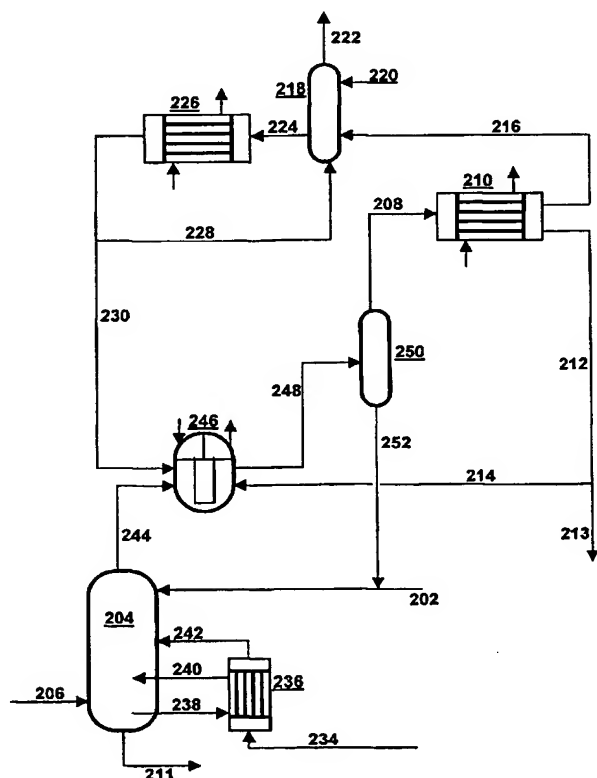
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[Continued on next page]

**(54) Title:** PROCESS FOR SEPARATING NH<sub>3</sub> AND OPTIONALLY CO<sub>2</sub> AND H<sub>2</sub>O FROM A MIXTURE CONTAINING NH<sub>3</sub>, CO<sub>2</sub> AND H<sub>2</sub>O



**(57) Abstract:** The invention relates to a process for separating  $\text{NH}_3$  from a mixture containing  $\text{NH}_3$ ,  $\text{CO}_2$  and  $\text{H}_2\text{O}$  which comprises an  $\text{NH}_3$  rectification step carried out in a  $\text{NH}_3$  separation device to which one or more streams containing  $\text{NH}_3$ ,  $\text{CO}_2$  and  $\text{H}_2\text{O}$ , including the mixture, are supplied, with a stream consisting substantially of gaseous  $\text{NH}_3$  being formed in the  $\text{NH}_3$  separation device, separated from the mixture and discharged. In the process according to the invention a condensation step is carried out on at least one of the stream consisting substantially of gaseous  $\text{NH}_3$  or the one or more streams containing  $\text{NH}_3$ ,  $\text{CO}_2$  and  $\text{H}_2\text{O}$  supplied to the  $\text{NH}_3$  separation device, in which at least a part of the existing  $\text{CO}_2$  is converted to a liquid phase.



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# INTERNATIONAL SEARCH REPORT

PCT/NL2004/000014

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C01C1/12

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 3 191 916 A (SAFFIAN STANLEY J ET AL) 29 June 1965 (1965-06-29) column 5, line 21 - line 31; claims; figure 1	1-7
X	EP 0 005 292 A (STAMICARBON) 14 November 1979 (1979-11-14) cited in the application page 4, line 26 - line 29; claims; figure 2	1,2
A	US 3 112 177 A (EIJI OTSUKA ET AL) 26 November 1963 (1963-11-26) column 5, line 18 - line 21; claims; figure	1,2
A	US 3 107 149 A (NISBET JR LAWRENCE W ET AL) 15 October 1963 (1963-10-15)	
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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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# INTERNATIONAL SEARCH REPORT

PCT/NL2004/000014

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	DE 15 92 349 B (LENTIA GMBH) 26 August 1971 (1971-08-26) -----	

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Information on patent family members

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